

SR-0001-2018
EXHIBIT A

CITY OF GAHANNA, OHIO SANITARY IMPROVEMENT PLANS FOR PRICE ROAD SEWER PHASE II SA-1032 2018

BENCH MARKS
(NAVD 1988)

- BM #1 Chiseled X on northeast bolt, top of f/flare hydrant located south side of Price Road at east side of Church Entrance. Elev. = 792.17
- BM #2 Mog. nail found in the west pavement of intersection of James Road & Price Road at the north east corner of concrete drive. Elev. = 799.58

**CITY OF COLUMBUS
STANDARD DRAWINGS**

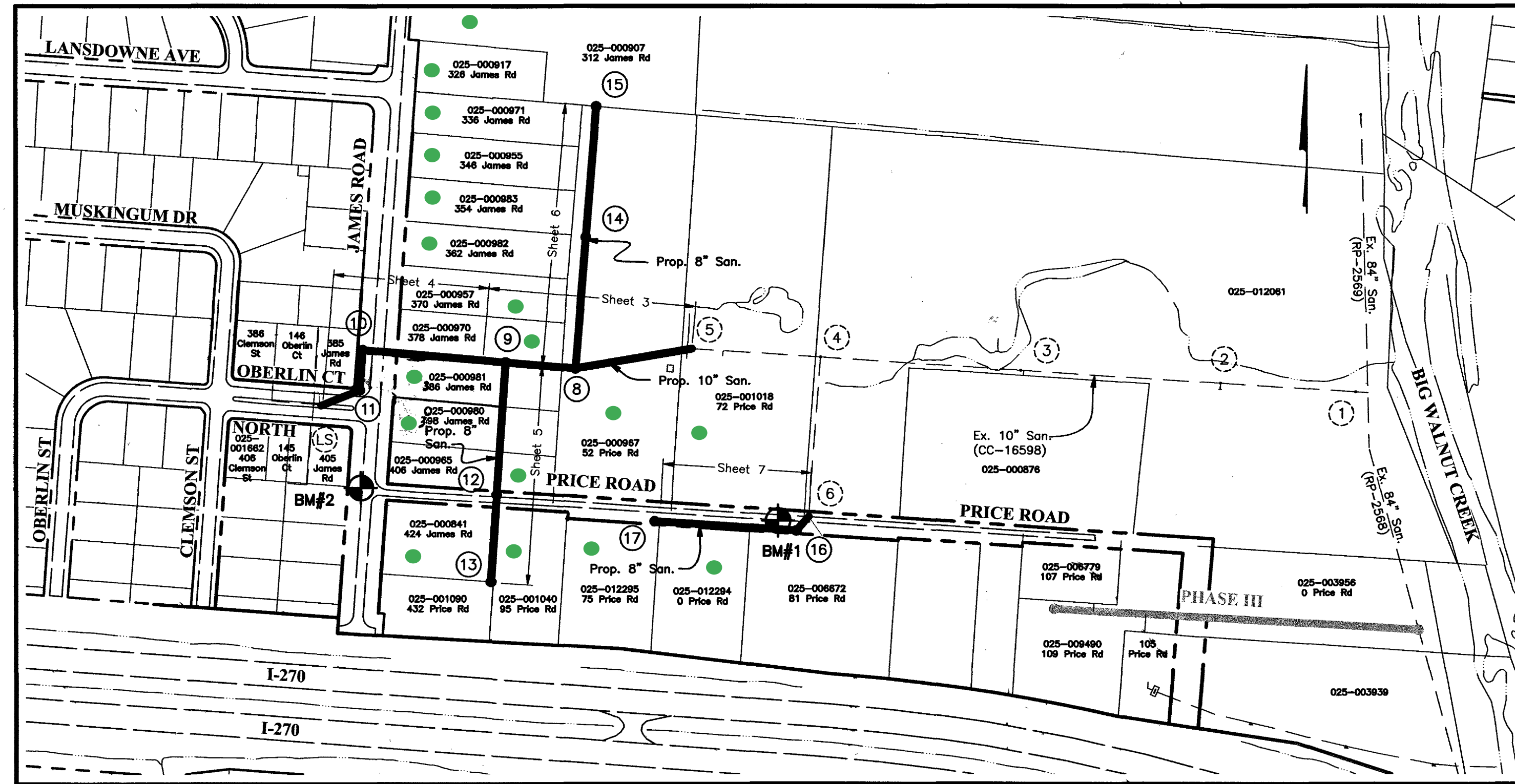
The Standard Construction Drawings listed on these plans are to be considered a part thereof.

Division of Sewerage & Drainage

- | | |
|---------|---------|
| AA-S10 | AA-S119 |
| AA-S106 | AA-S149 |
| AA-S107 | AA-S150 |
| AA-S110 | AA-S151 |
| AA-S111 | AA-S159 |
| AA-S117 | AA-S160 |
| | AA-S162 |

Engineering & Construction Division

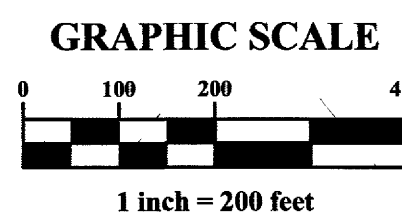
- | |
|------------|
| 1441 DR. A |
| 2000 DR. A |
| 2010 DR. A |
| 2180 DR. A |
| 2300 DR. A |
| 2319 DR. A |



INDEX MAP
Scale: 1" = 200'

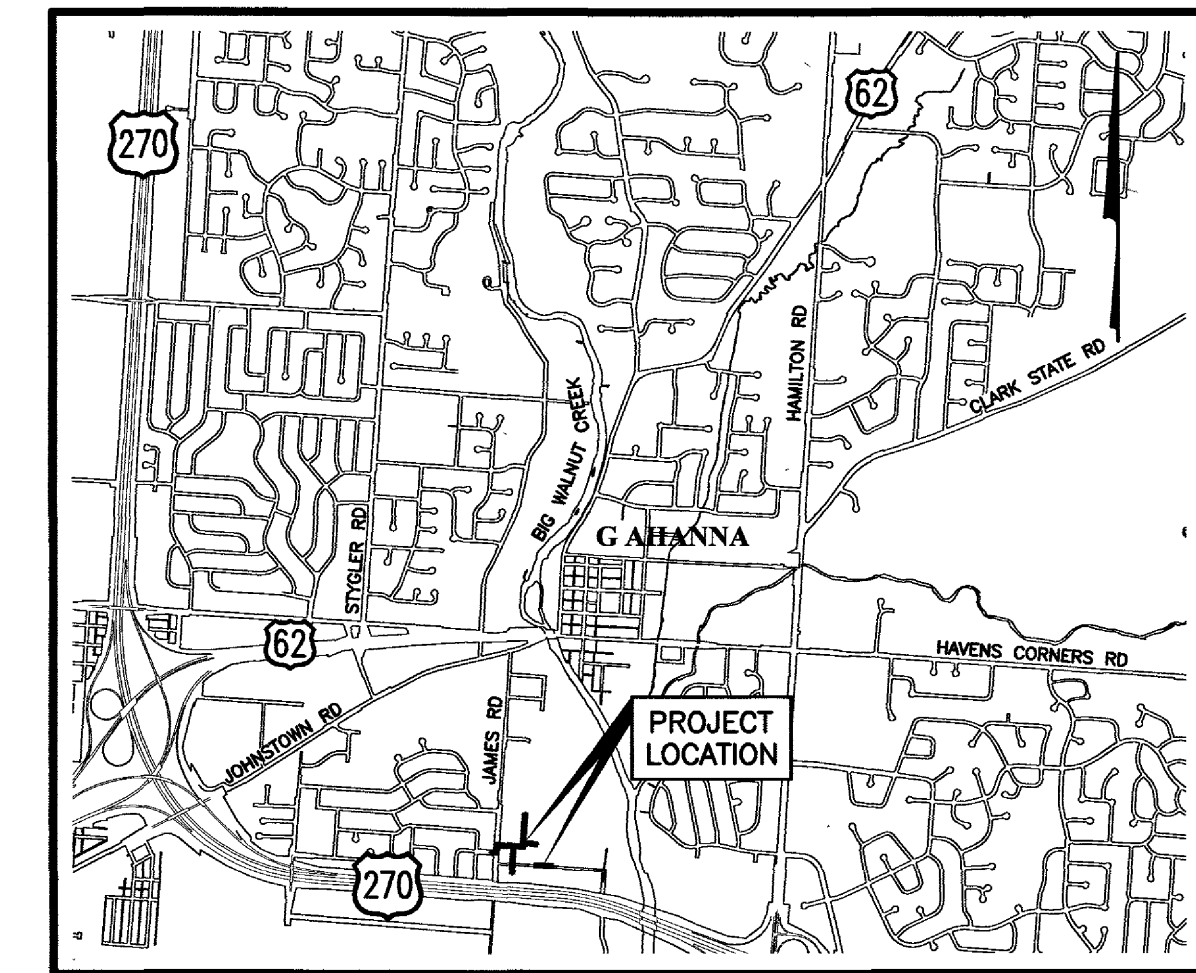
- Properties being offered the assessment option

Estimated cost of construction = \$575,889.60



INDEX OF SHEETS

Title Sheet	1
General Notes	2
Plan & Profile	3-7
Tributary Map	8



LOCATION MAP
Not to Scale

CITY OF GAHANNA APPROVAL

The signatures below signify only concurrence with the purpose and general location of the project. All technical details remain the responsibility of the Engineer preparing the plans.

- | | | |
|--|----------|------|
| | 2/5/16 | Date |
| | 02/04/16 | Date |
| | 11/29/16 | Date |
| | 11/29/16 | Date |
| | 11/30/16 | Date |
| | 12/1/16 | Date |

CITY OF COLUMBUS APPROVAL

Approval on the part of the City of Columbus is given pursuant to provisions of the sewer service agreement with the City of Gahanna, Ohio on July 26, 2004 and all subsequent amendments thereof.

This Sanitary Sewer meets or exceeds City of Columbus design standards (including per capita flow, peaking factor, and 1/1 allowance and material specifications).

- | | | |
|--|----------|------|
| | 07/20/16 | Date |
| | 8-2-2016 | Date |

PREPARED BY:



This is to certify that good engineering practices have been utilized on the design of this project, and that all of the minimum local standards have been met, including those standards greater than minimum where, in my opinion, are needed to protect the safety of the public. Any variances to the above standards are consistent with sound engineering practices and are not detrimental to the health, safety, and convenience.

- | | | |
|--|---------|------|
| | 3/22/16 | Date |
|--|---------|------|

Ryan M. Andrews, P.E.

PM185

CC-17420

MARK	DATE	DESCRIPTION
U	1/17/17	Relocation of Proposed Mt. 1.3
U	1/17/18	Updated Estimate of Quantities

GAHANNA

CITY OF GAHANNA, OHIO
SANITARY IMPROVEMENT PLANS
FOR
PRICE ROAD SEWER
PHASE II SA-1032
TITLE SHEET



DATE	January 2016
SCALE	As Noted
JOB NO.	20150087
SHEET	1/8

GENERAL NOTES:

The current City of Columbus construction and material specifications (CMS) together with the requirements of the City of Gahanna, Ohio, shall govern materials and workmanship involved in improvements shown on these plans, except those specifications modified by the following specifications or construction details set forth herein.

All pertinent standard construction drawings are available upon request at the office of the City of Gahanna Engineers.

All work is to be acceptable to City of Gahanna officials. No work is to commence until arrangements have been made with the City of Gahanna Engineer for inspection.

The Contractor shall notify the City of Gahanna Engineer at least two working days prior to construction.

The Contractor is to schedule a pre-construction meeting one business week prior to construction. The meeting shall take place at least one business week prior to the following: site clearing, material delivered on-site, equipment on-site and field office on-site.

The Contractor shall be solely responsible for complying with all federal, state and local safety requirements including the Occupational Safety and Health Act of 1970. The Contractor shall exercise precaution always for the protection of persons (including employees) and property. It shall solely be the responsibility of the Contractor to initiate, maintain and supervise all safety requirements, precautions and programs in connection with the work, including the requirements for confined spaces per 29 CFR 1910.146.

The price(s) quoted shall include all items of labor, materials, tools, equipment, insurance and other costs necessary to fully complete the work pursuant to the contract documents. It is the intention of the contract documents to provide and require a completed work project ready for operation. Any work items omitted from such contract documents which are clearly necessary for the completion of such work and its appurtenances shall be considered a part of such work although not directly specified or called for in the contract documents.

All field tile broken during excavation shall be replaced with perforated pipe or connected to the storm sewer system. The cost for this work shall be included in price bid for the various related items.

No natural drainage courses shall be altered and no fill, materials or structures shall be placed in it unless provisions are made for the flow of water in a manner satisfactory to the City Engineer.

During construction, the Contractor shall provide adequate drainage and proper soil erosion control measures for protection of all adjacent roads and lands.

The Contractor shall repair or replace any or all existing signs, shrubs, fences, or other physical features damaged during the execution of this contract at their own expense. All repairs shall be to the satisfaction of the City of Gahanna.

The Contractor shall confine activities to the project site, existing right-of-ways, temporary easements and permanent easements, and shall not enter upon other properties without written permission of the property owner.

Any sediment or debris which has reduced the efficiency of a structure shall be removed immediately. Should a structure or feature become damaged, the Contractor shall repair or replace it at no additional cost to the Owner.

The Contractor shall furnish and operate suitable pumping equipment of such capacity, adequate to de-water the trench, should water be encountered. The trench shall be sufficiently de-watered so that the placement of bedding and the laying and joining of pipe is made on firm, dry ground. If de-watering cannot produce acceptable subgrade, and only as directed by the Engineer, unsuitable materials shall be removed and replaced by No. 2, stone foundation.

The Contractor shall convey all trench water to a natural drainage channel or storm sewer without damage to property. The Contractor shall be responsible to place and maintain the necessary sediment and erosion control measures to filter the de-watering discharge and to prevent erosion at the discharge location. Cost for the above shall be included in the bid price for the various improvement items.

The cost of any de-watering operations required for the construction of the sanitary sewer shall be included in the price bid for the various improvement items.

The Contractor is ultimately responsible to ensure construction to plan grade. The Contractor shall ensure there is a surveyor's level and rod on the project for use in performing grade checks whenever sewer line structures or pipes are being installed. The Contractor shall make this equipment available for use and assist the City Inspector in performing grade checks when requested by the inspector. The inspector will make all reasonable attempts to confine requests for assistance in performing grade checks to times convenient to the Contractor. These checks will be performed to ensure that construction matches plan grade, and to ensure that all existing inverts along with the proposed top of casting elevations are verified during construction of the sewer.

The Contractor shall reference all iron pins or monuments. If any pins or monuments are destroyed or damaged by the Contractor, they shall be accurately replaced by a registered surveyor in the state of Ohio at the completion of the project.

Vertical control has been established for the project as shown on the plans. The Contractor is responsible for all required surveys to complete the project including reestablishment of control points, project layout and staking of easements.

No non-rubber tired vehicles shall be moved on City streets, existing private roadways, or parking lots unless written approval is granted by the appropriate City authority or property owner. Any damage must be repaired by the Contractor to the satisfaction of the City of Gahanna at no cost to the City or property owner.

The Contractor shall make his own provisions to provide a site staging area and job trailer (if required) for the project improvements.

Orange construction fencing shall be placed around the existing trees to be saved and remain in place during the development construction. The location and limits of the fencing and any clearing necessary shall be as per the approved plans.

Inconvenience to the adjacent property owners and to the traveling public shall be kept to an absolute minimum. All work is to continue on a uniform basis and on schedule, particularly the restoration and clean up of disturbed areas after construction.

The Contractor shall take measures to prevent soil transport during construction onto public roads. The Contractor shall clean and sweep streets as directed by the City. The cost for street sweeping and cleaning is to be included in the price bid under various items.

UTILITIES:

The Contractor shall give notice to the Ohio Utilities Protection Service (phone 1-800-362-2764) and to the owners of the utility facilities shown on the plan who are not members of a registered utility protection service. The above mentioned notice shall be given at least 48 hours prior to the start of construction.

The Contractor is responsible for the investigation, location, support, protection, and restoration of all existing utilities and appurtenances whether shown on these plans or not. The cost of this work shall be included in the price bid for the various related items. The Contractor shall expose all utilities or structures prior to construction to verify the vertical

and horizontal effects on the proposed construction. The Contractor shall give notice to OUPS and other utility owners per the general notes.

Where potential grade conflicts might occur with existing utilities, the Contractor shall expose and verify the depth of the existing utility in advance of the proposed construction.

The identity and locations of existing underground utilities in the construction area have been shown on the approved construction drawings as accurately as provided by the utility owner. The Engineer assumes no responsibility for the accuracy or depths of underground facilities shown on the approved construction drawings. If damage is caused, the Contractor shall be responsible for repair of the same and for any resulting contingent damage.

The following utilities and owners are located within the work limits of this project and are registered members of the underground utility protection service:

UTILITY	OWNER	TELEPHONE	FAX
Water Facilities	City of Gahanna Water Division 200 S. Hamilton Rd Gahanna, OH 43230	(614) 342-4440	(614) 342-4100
Sewer Facilities	City of Gahanna Sewer Division 200 S. Hamilton Rd Gahanna, OH 43230	(614) 342-4440	(614) 342-4100
Electric Facilities	American Electric Power 850 Tech Center Dr Gahanna, OH 43230	(614) 883-6811	(614) 883-6868
Gas	Columbia Gas of Ohio 200 Civic Center Dr Columbus, OH 43215	(614) 460-6000	(614) 460-4265
Telephone	AT&T 150 E. Gay St Gahanna, OH 43212	(800) 660-1000	(614) 223-6296

SANITARY SEWER NOTES:

Service risers, item 914, shall be installed where depths from the wyes to the existing or proposed elevations exceed 10'. The tops of risers shall be no more than ±9' below the existing or proposed surface elevation, whichever is higher.

A minimum vertical clearance of 1.5' shall be provided between the proposed sanitary service and existing utilities or structures unless otherwise noted on these plans.

All PVC sewer lines shall be deflection tested after installation in conformance with the requirements of item 901 of the City of Columbus, Construction and Material Specifications, current version.

Pipe for sanitary sewer shall be PVC sewer pipe ASTM D-3034, SDR-35. Joints shall conform to ASTM D3212. Gaskets shall conform to ASTM F477. The services shall be field tested by the infiltration, exfiltration or air test per C.O.C. CMS Item 901.

All pipes shall be laid with type 1 granular material bedding and backfill as shown on standard construction City of Columbus AA-S151. Installation shall conform to CMS section 900.

All manholes shall meet the requirements of City of Columbus standard drawing AA-S102 (type "C"), with the exception that steps shall be eliminated within all sanitary manholes.

All manholes shall have watertight bolt down lids due to proximity to flood plain.

All manholes shall have vacuum tested per C.O.C. CMS Item 901.

Roof drains, foundation drains and other clean water connections to the sanitary sewer system are prohibited.

STORM SEWER NOTES:

Any placement of storm sewers beneath existing or proposed pavement shall be backfilled in accordance with Columbus CMS item 912, compacted granular backfill.

All pipes shall be laid with type 1 granular material bedding and backfill as shown on standard construction City of Columbus AA-S151. Installation shall conform to CMS section 901.

All concrete pipe and storm sewer structures shall be stamped or have such identification noting that said pipe and/or storm structures have been inspected by the City of Columbus and meets their specifications. Pipe and structures without proper identification will not be permitted for installation.

All curb inlets and manholes shall be channeled as directed. The cost for this work is to be included in the price bid for various storm sewer items.

In case of conflict in grade between water lines and storm sewers, the water lines shall be lowered during construction.

All plastic sewer lines shall be deflection tested after installation in conformance with the requirements of Columbus CMS Item 901.

MAINTENANCE OF TRAFFIC:

The Contractor shall be responsible for the protection and safe movement of pedestrians through, around and away from the construction site as designated in section 60.01 of the Ohio Manual of Uniform Traffic Control Devices (OMUTCD).

The safety of pedestrian traffic shall be considered at all times in the provision of traffic control devices required by these plans and notes. It shall be the Contractor's responsibility to provide lights, signs, barricades and other warnings to physically separate the pedestrian from hazards incidental to the construction operations such as open excavations, etc.

All traffic control devices shall be furnished, erected, maintained and removed by the Contractor in accordance with the Ohio Manual of Uniform Traffic Control Devices (OMUTCD) for construction and maintenance operations. All devices shall meet FP-85 reflectance standards and in full compliance with "quality standards for work zone traffic control devices" published by ATTSSA. All traffic control devices must meet NCHRP 350.

Steady burning, type "C" lights shall be required on all barricades, drums and similar traffic control devices in use at night. All signs, nine square feet (36" x 36") and over shall have yellow type "A" low intensity flashing warning lights and three flags. Cones are not approved for use at night.

The roadway shall not be opened to traffic until permanent traffic controls are in place or until temporary traffic controls approved by the inspector are installed. The Contractor assumes all liability for the premature removal of temporary traffic controls.

The Contractor shall be responsible for the reinstallation and/or replacement of all permanent traffic control devices damaged or removed during the construction. Permanent traffic

controls no longer in conflict with temporary traffic controls shall be replaced immediately.

All permanent traffic controls not in conflict with the temporary traffic controls shall be maintained throughout the project by the Contractor. The Contractor shall assume all liability for missing, damaged, and improperly placed traffic control devices.

All trenches within the road right-of-way shall be backfilled or securely plated during non-working hours.

All lanes shall be fully open to traffic on all public streets and alleys unless otherwise approved by the City of Gahanna. Access to properties shall be maintained.

Any work done by the City including installation, relocation, removal and/or replacement of permanent traffic control devices as a result of work done by the Contractor or as a result of the negligence of the Contractor shall be at the expense of the Contractor

SUBSURFACE SOIL DATA

Test borings have been taken at several locations along the project corridor for design purposes. The subsurface soils report is available for the Contractors review. Any performance of additional site subsurface investigations (test holes) shall be coordinated in advance with the County as warranted. Excavated material shall be replaced in a controlled manner to minimize impact on field earthwork. Any requirements or contingencies included within the soils report shall be included in the various bid items unless specifically identified in the estimate of quantities, as shall the cost of all shoring rock excavation and de-watering.

CONVENIENCE FACILITIES

The Contractor shall furnish and maintain sanitary convenience facilities for the workmen and inspectors for the duration of the work. Cost shall be included in the price bid for mobilization.

STANDARD TOPSOIL, SEEDING, FERTILIZER, AND MULCHING

Topsoil shall meet requirements of 653, seed of 659 w/hydroseeding rather than seed and straw. Topsoil at 52 Price Road, shall be Jones Topsoil, Supersoil or approved equal.

The grades shall match all existing landscape and any improvements completed under this plan. The Contractor shall scarify the soil surface to open the soil prior to seeding. All seeding, fertilizer, and mulch shall be placed within 5 working days of placing topsoil. The seeding and fertilizer mixes shall be as specified by the City and shall be installed per the manufacturer's recommendations.

The starter-fertilizer mix shall contain a herbicide to prevent weed establishment. No weeds or undesirable grasses will be accepted in the final inspection.

If the initial seeding is not 95% established by September 15th, the Contractor shall re-seed, fertilize, and mulch the bare areas prior to October 1st.

DEWATERING

Should water be encountered, the Contractor shall furnish and operate suitable pumping equipment of such capacity adequate to dewater the trench. The trench shall be sufficiently dewatered so that the placement of bedding and laying and joining of the pipe is made in a trench free of standing water. The Contractor shall convey all trench water to a natural drainage channel or storm sewer without causing any property damage. The cost for dewatering activities shall be included in price bid for the various related items.

The Contractor is solely responsible to the Ohio Department of Natural Resources (O.D.N.R.) for registry, maintenance, and abandonment of any withdrawal devices used in the construction of this project.

Installation of any well, well point, pit or other device used for the purpose of lowering the groundwater level to facilitate construction of this project shall be properly abandoned in accordance with the provisions of Section 3745-9-10 of the Ohio Administrative Code or as directed by the Director or his representatives.

The Contractor shall be required to complete and file a Well Log and a Drilling Report Form with O.D.N.R., Division of Water, within 30 days of the completion of installation of any well, well point, pit or other device used for the purpose of removing groundwater from an aquifer, in accordance with Sections 1521.01 and 1521.05 of the Ohio Revised Code. In addition, any such facility that has a capacity to withdraw waters of the State in an amount greater than 100,000 gallons per day from all sources shall be registered by the Contractor with the Chief of the O.D.N.R., Division of Water, within three months of the completion of the facility in accordance with Section 1521.16 of the Ohio Revised Code. Copies of the necessary paperwork can be obtained at O.D.N.R., Division of Water, Fountain Square, Columbus, OH, 43224-1387 - (614) 265-6717. Records of these inspections shall be kept and made available to jurisdictional agencies if requested.

CONSTRUCTION DEBRIS

The Contractor shall be responsible for the immediate cleanup of any debris, mud or dirt tracked or spilled on County and/or public streets or private drives whether inside or outside the project area. The Contractor is responsible for the cost of any services contracted and/or completed by the County in the clean up of any tracking or spillage anytime during project construction. The Engineer may require the Contractor to perform weekly street cleaning if excessive amounts of dirt and mud are left along the street. This may include removal by sweeping, power cleaning, or manual methods. The cost of this work shall be included in the various contract items, unless otherwise specified.

TREE REMOVAL

The Contractor shall remove trees and vegetation only as necessary to perform his work within the specified work limits or right-of-way. He shall make every effort to minimize removals except those specifically marked for removal in the plans.

MAINTAINING SEWAGE SYSTEM OPERATION

The Contractor should expect to encounter existing septic tanks, pipes or treatment devices that are active. The Contractor shall sequence his work, and make provisions necessary to maintain service for the structures served by these systems. All costs for pumping, hauling, temporary storage or other work required to maintain service shall be included with the pipe and various related items.

ITEM SPECIAL PUMP STATION CONVERSION

The contractor shall provide the labor and materials necessary to remove existing pumps, wiring, controls, rails, piping and other components, and install a smooth concrete channel to convert the existing pump station wet well to a manhole and make core and boot connection with the new 10" sewer. Contractor shall take care when removing salvageable materials and provide the City opportunity to select and store materials for re-use. All other materials shall become the property of the Contractor and be legally disposed of. The existing sanitary force main shall be abandoned by sealing it on both ends (Pump station and Ex. MH#2) using approved precast stoppers and/or masonry bulkhead.

VIDEO RECORDING LINES

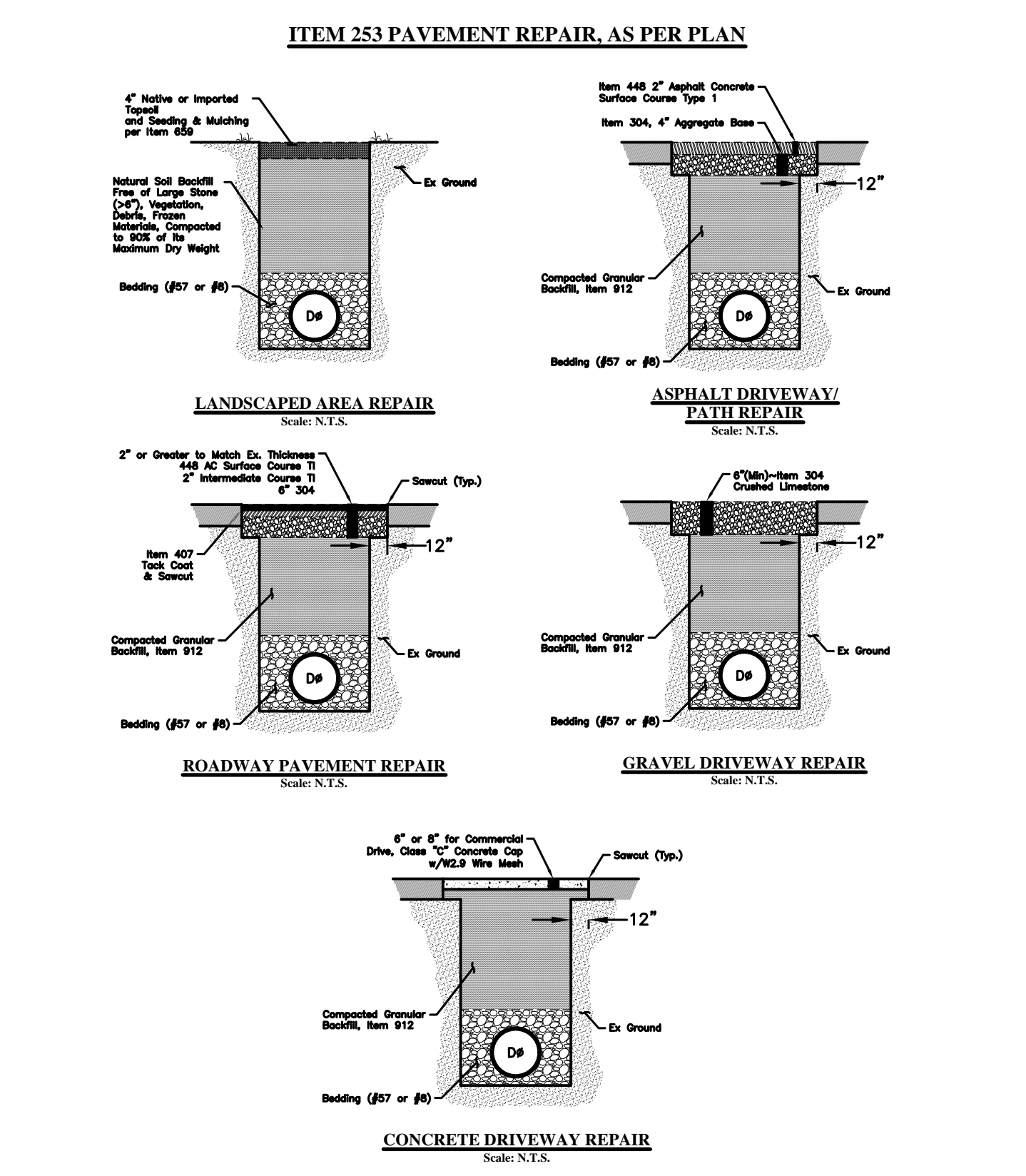
All sewers shall be cleaned and videoed to show that the sewers are clean prior to acceptance. Video shall document locations of all wye connections. A dvd copy shall be provided to the City. The cost of cleaning and video recording is to be paid with the pipe and other related item. No additional compensation will be provided.

ESTIMATE OF QUANTITIES					
REF	SPEC	ITEM	Description	QNTY	UNITS
			Base Bid		
1	COC	201	Clearing and Grubbing	1	LS
2	COC	202	Excavation	1	LS
4	COC	253	Pavement Repair, As per plan (James, Price, Church)	70	SY
5	COC	604	Sanitary Manhole	7	EA
6	COC	604	Sanitary Manhole with Outside Drop	3	EA
7	COC	604	Ex. Manhole Adjustments, Core and Boot	2	EA
8	COC	915	10" x 6" wye	3	EA
9	COC	915	8" x 6" wye	14	EA
10	COC	915	Cleanout	1	EA
11	COC	901	10" Pipe, with Type 1 Bedding with Item 911 Compacted Backfill	771	LF
12	COC	901	10" Pipe, with Type 1 Bedding with Item 912 Compacted Granular Backfill	70	LF
13	COC	901	8" Pipe, with Type 1 Bedding with Item 911 Compacted Backfill	1207	LF
14	COC	901	8" Pipe, with Type 1 Bedding with Item 912 Compacted Backfill	63	LF
15	COC	918	6" Pipe, with Type 1 Bedding with Item 911 Compacted Backfill	417	LF
16	COC	914	6" Riser Pipe, with Item 911 Compacted Backfill	69	LF
17	COC	623	Construction Layout Stakes	1	LS
18	COC	624	Mobilization	1	LS
19	COC	653/ 659	Topsoil, Seeding and Mulching, as per plan	1	LS
20		SPEC	Pump Station Conversion	1	LS

COC Refers to the 2012 City of Columbus Construction and Material Specifications

TRENCH DAMS

The Contractor shall place a cut off trench dam of native clay or other impervious soil across and along the trench on the service lateral upstream of the wye connection and near the mid point of each run of main line to retard and resist the movement of groundwater through the trench bedding and backfill. The trench dams shall be carefully compacted and shall be six (6) feet in thickness as measured along the pipe and shall be constructed against the undisturbed trench sides from the subgrade to a point 36 inches over the top of the pipe.



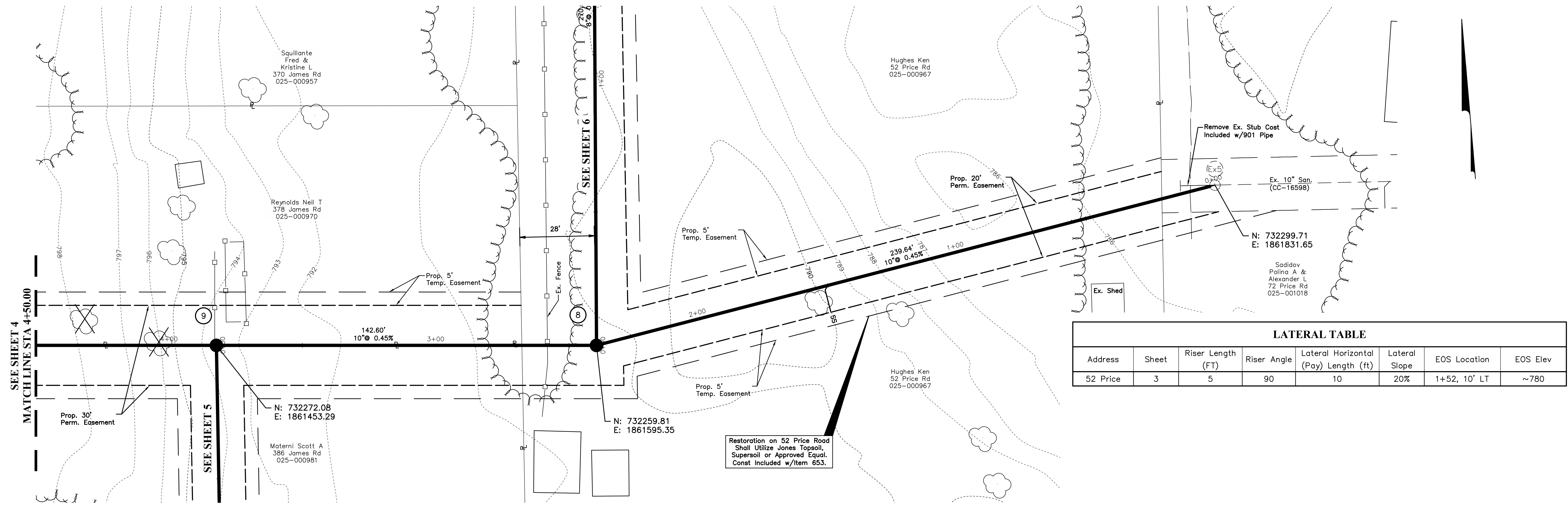
Type	Pipe Size	Pipe Material	Material Spec.	Joint Spec.	Bedding Classification	Minimum Slope	Pipe Length	Maximum MH Spacing
Main	10-inch	PVC	ASTM D-3034	ASTM D-3212 ASTM F-477	CL2	0.45%	753 LF	291
Main	10-inch	PVC	ASTM-3034	ASTM D-3212 ASTM F-477	CL1	0.45%	88 LF	291
Main	8-inch	PVC	ASTM D-3034	ASTM D-3212 ASTM F-477	CL2	0.45%	1217 LF	288
Main	8-inch	PVC	ASTM D-3034	ASTM D-3212 ASTM F-477	CL1	0.45%	80 LF	288
Lateral	6-inch	PVC	ASTM D-3034	ASTM D-3212 ASTM F-477	CL2	2.00%	392 LF	N/A

PIPE SPECIFICATIONS

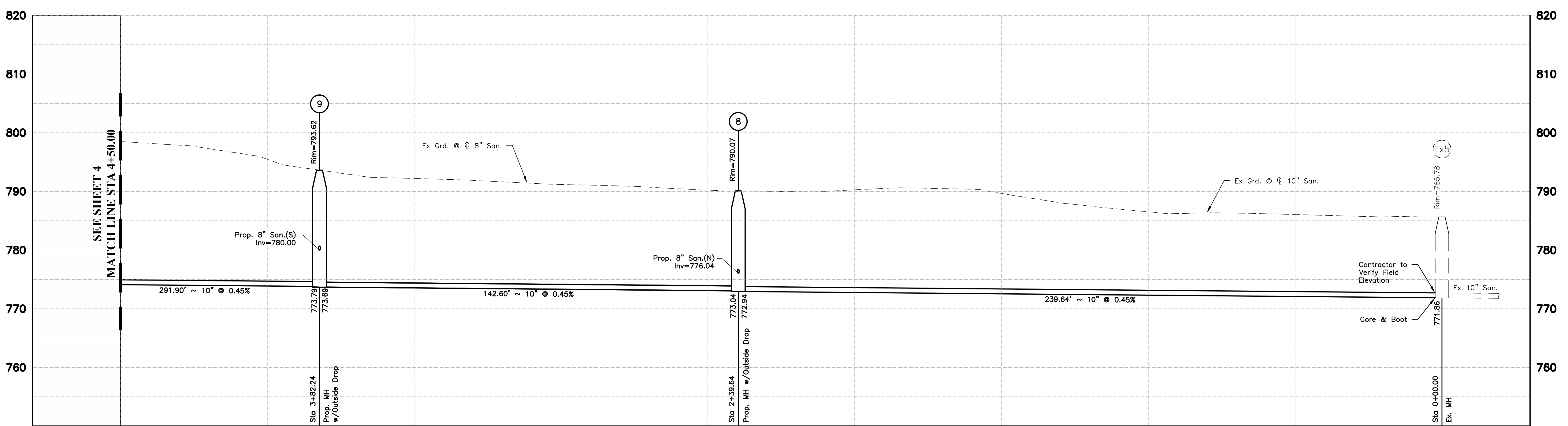
REVISIONS
 MARK DATE DESCRIPTION
 1/17/17 Relocation of Proposed MH 13
 1/17/17 Updated Estimate of Quantities
 GAHANNA
 CITY OF GAHANNA, OHIO
 SANITARY IMPROVEMENT PLANS
 FOR
**PRICE ROAD SEWER
 PHASE II SA-1032**
 GENERAL NOTES
 DATE
 January 2016
 SCALE
 None
 JOB NO.
 20150087
 SHEET
 2/8
 emht
 Evans, Meecham, Hamilton & Tiron, Inc.
 5800 New Albany Road, Columbus, OH 43254
 Phone: 614.775.4500 Toll Free: 888.775.3448
 emht.com

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LATERAL TABLE							
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52 Price	3	5	90	10	20%	1+52, 10' LT	~780



STATION	4	3	2	1	0
SURFACE	795.46	791.18	790.26	786.51	785.78
INVERT	773.87	773.31	772.76	772.31	771.84
CUT	21.59	17.86	17.49	14.20	13.95

MARK	DATE	DESCRIPTION

GARHANA

CITY OF GARHANA, OHIO
 SANITARY IMPROVEMENT PLANS
 FOR
PRICE ROAD SEWER
PHASE II SA-1032
 PLAN & PROFILE



DATE
January 2016

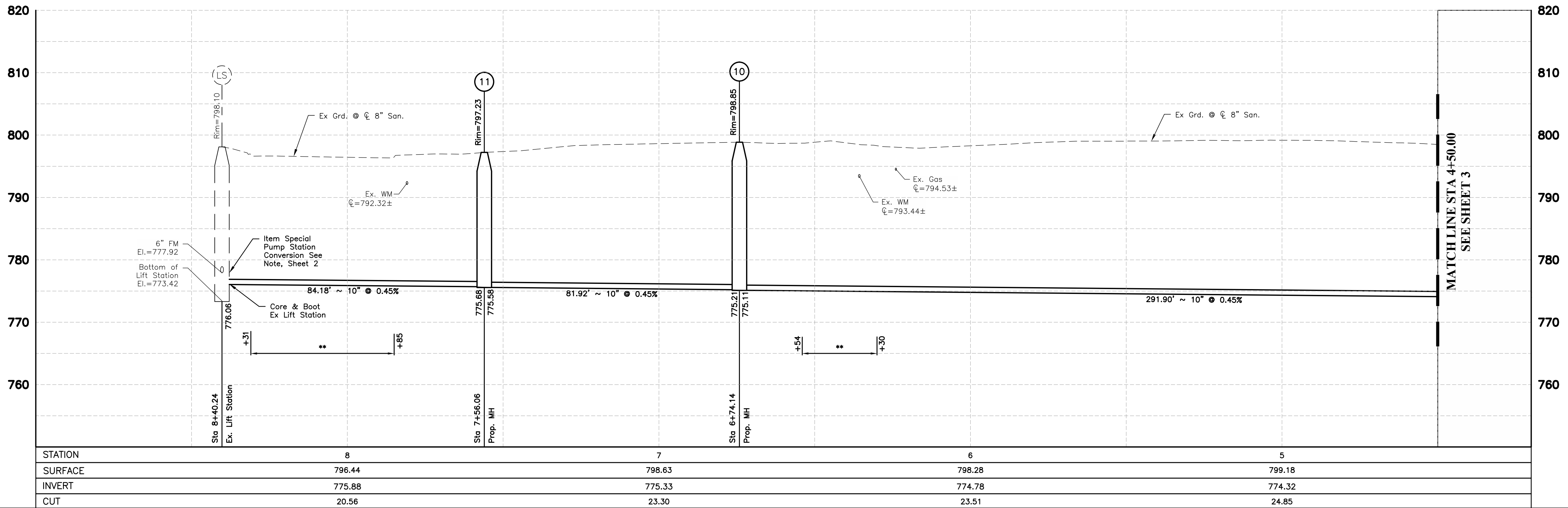
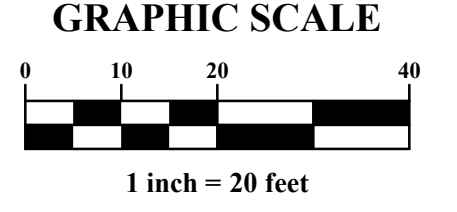
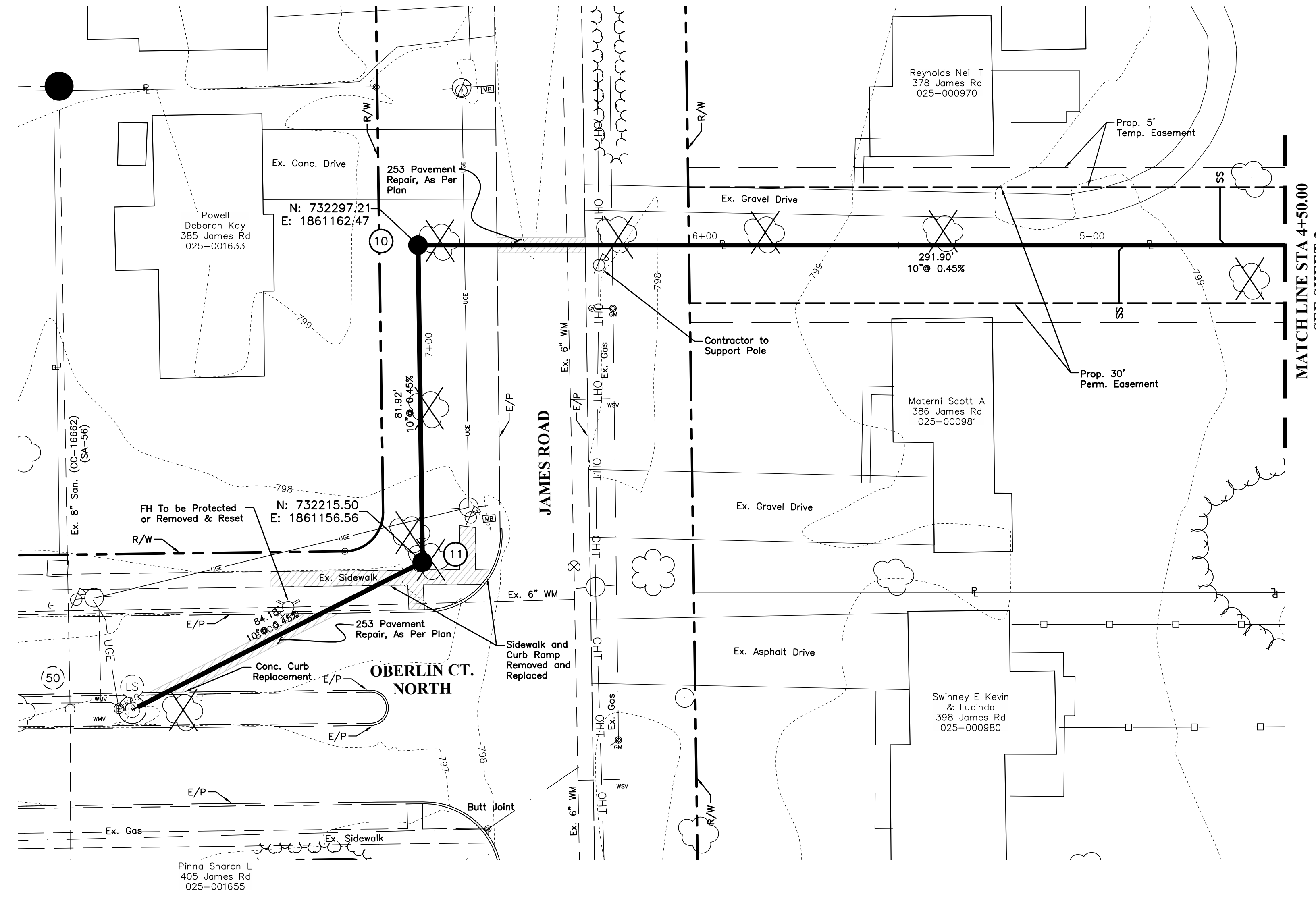
SCALE
Horiz: 1" = 20'
Vert: 1" = 10'

JOB NO.
20150087

SHEET
3/8

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LATERAL TABLE							
Address	Sheet	Riser Length (FT)	Riser Angle	Lateral Horizontal (Pay) Length (ft)	Lateral Slope	EOS Location	EOS Elev
378 James	4	11.5	90	15	20%	4+67, 15' RT	~789
386 James	4	11.5	90	15	20%	4+93, 15' LT	~789



** Item 912 Compacted Granular Backfill

MARK	DATE	DESCRIPTION

GARHANA

CITY OF GARHANA, OHIO
SANITARY IMPROVEMENT PLANS
FOR
**PRICE ROAD SEWER
PHASE II SA-1032**
PLAN & PROFILE



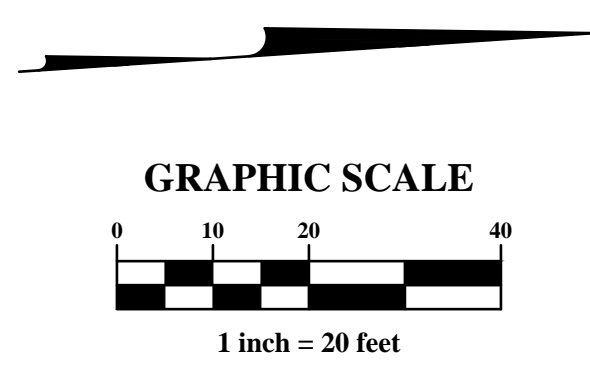
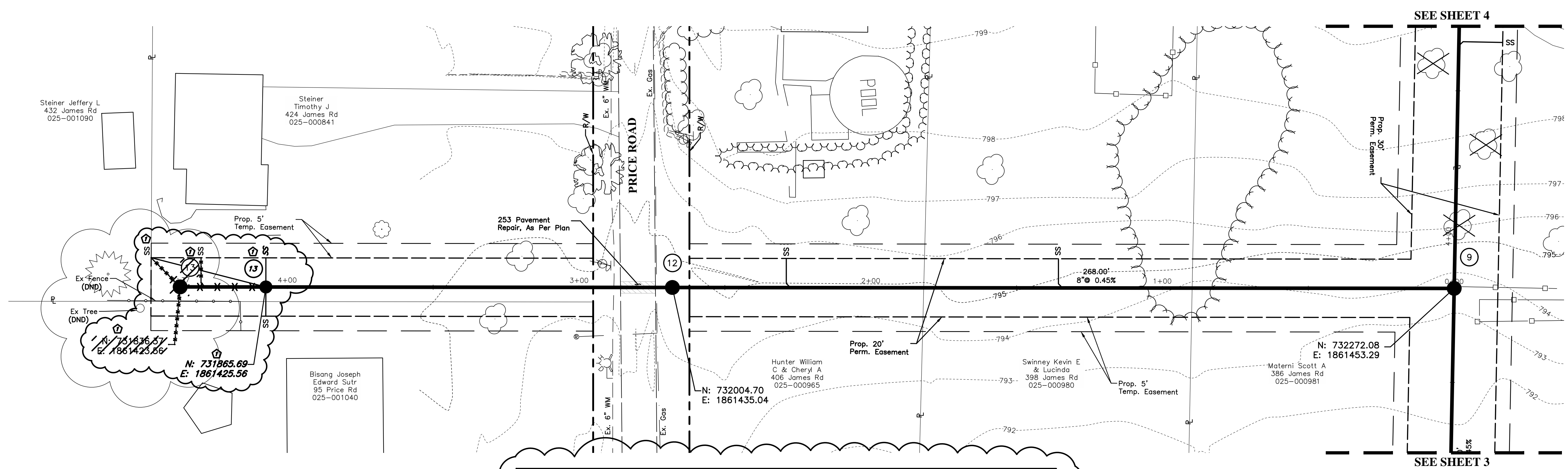
DATE
January 2016

SCALE
Horiz: 1" = 20'
Vert: 1" = 10'

JOB NO.
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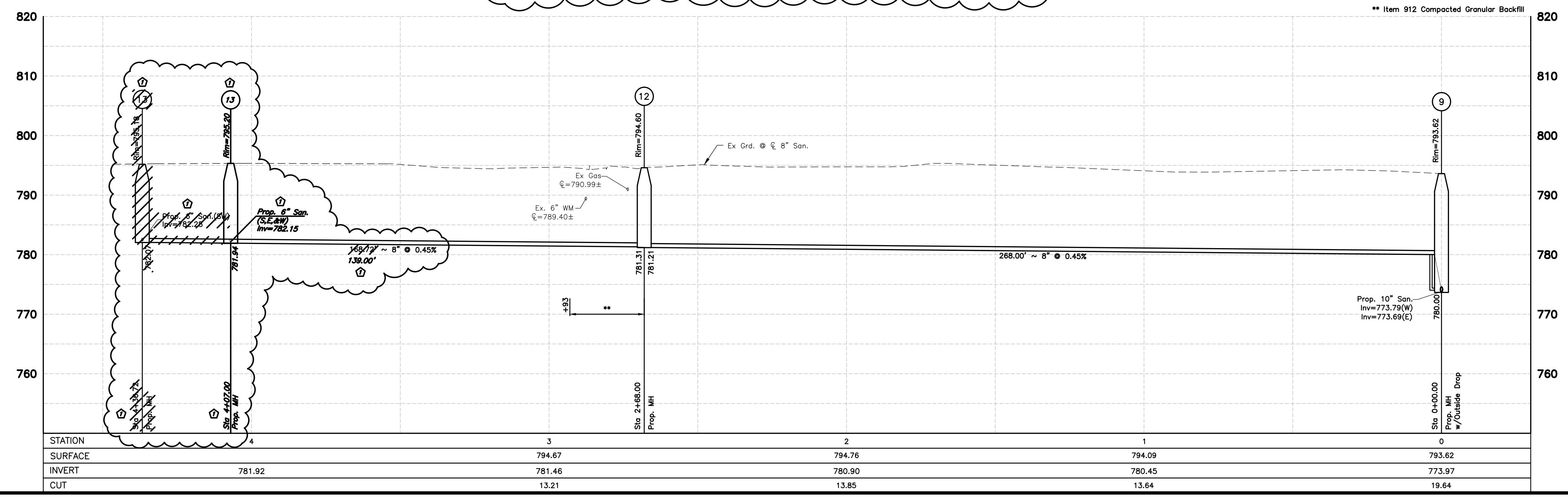
SHEET
4/8

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LATERAL TABLE

Address	Sheet	Riser Length (FT)	Riser Angle	Lateral Horizontal (Pay) Length (ft)	Lateral Slope	EOS Location	EOS Elev
398 James	5	5	90	10	20%	1+36, 10' RT	~788
406 James	5	4.5	90	10	20%	2+28, 10' RT	~788
95 Price	5	0	0	10	2%	4+07, 10' LT	782.36
424 James	5	0	0	10	2%	4+25, 10' RT	782.36
432 James	5	0	0	4.41	2%	4+27, 10' RT	782.65



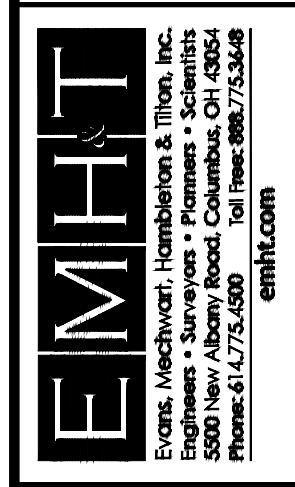
STATION	3	2	1	0
SURFACE	794.67	794.76	794.09	793.62
INVERT	781.92	780.90	780.45	773.97
CUT	13.21	13.85	13.64	19.64

REVISIONS

MARK	DATE	DESCRIPTION
1	1/11/17	Allocation of Proposed MH 13

GAHANNA

CITY OF GAHANNA, OHIO
SANITARY IMPROVEMENT PLANS
FOR
**PRICE ROAD SEWER
PHASE II SA-1032**
PLAN & PROFILE



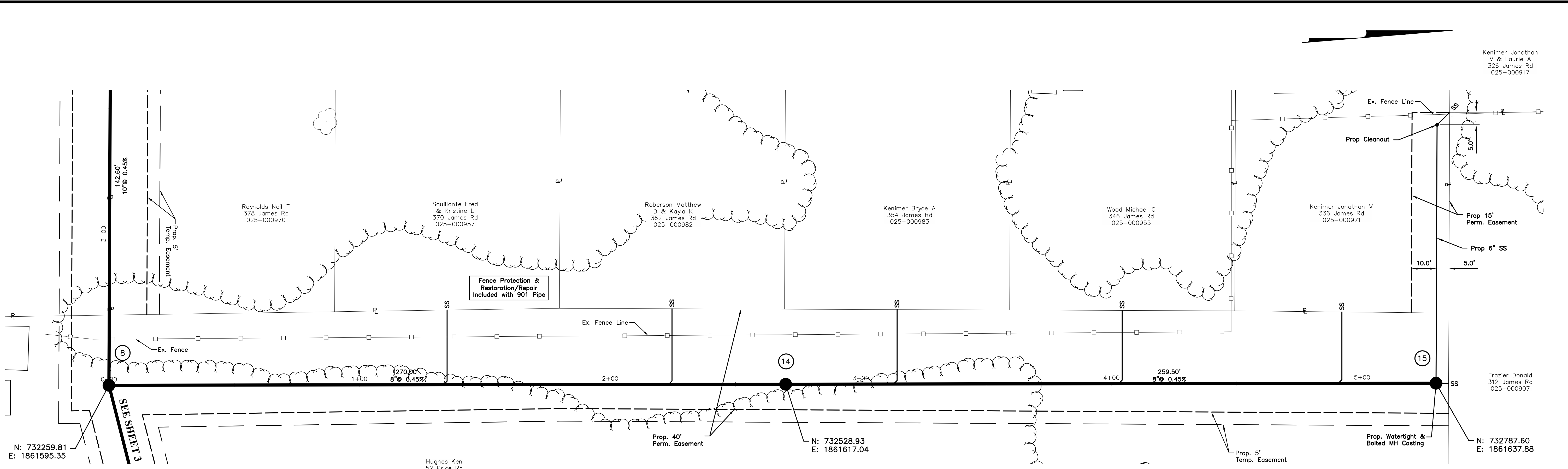
DATE
January 2016

SCALE
Horiz: 1" = 20'
Vert: 1" = 10'

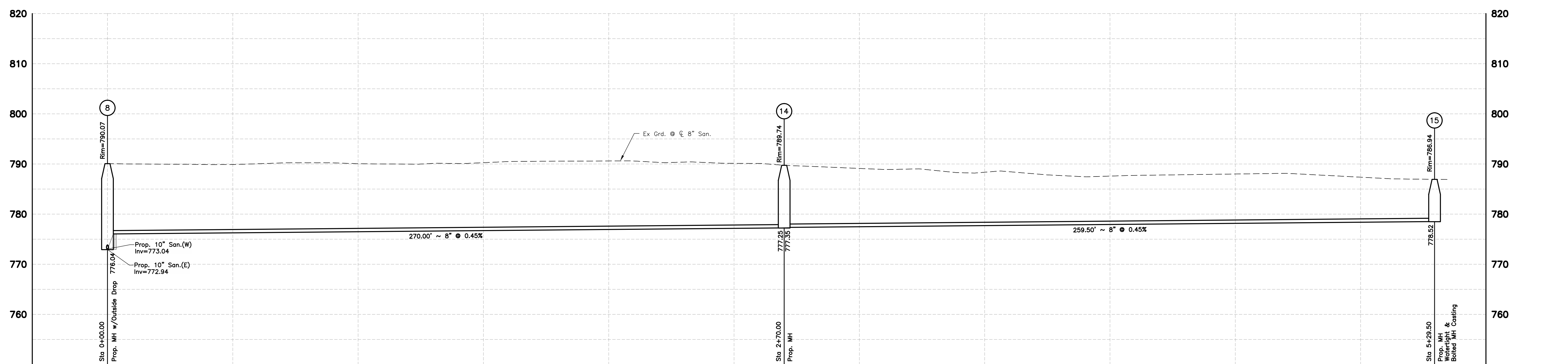
JOB NO.
20150087

SHEET
5/8

I:\20150087\Drawings\SSWR-PLAN & PROFILE.dwg, Last Saved: 2/14/2018, 8:44 AM, Last Printed: By: Hill, Date: 2/15/2018, 12:12 PM, No. Xref(s)

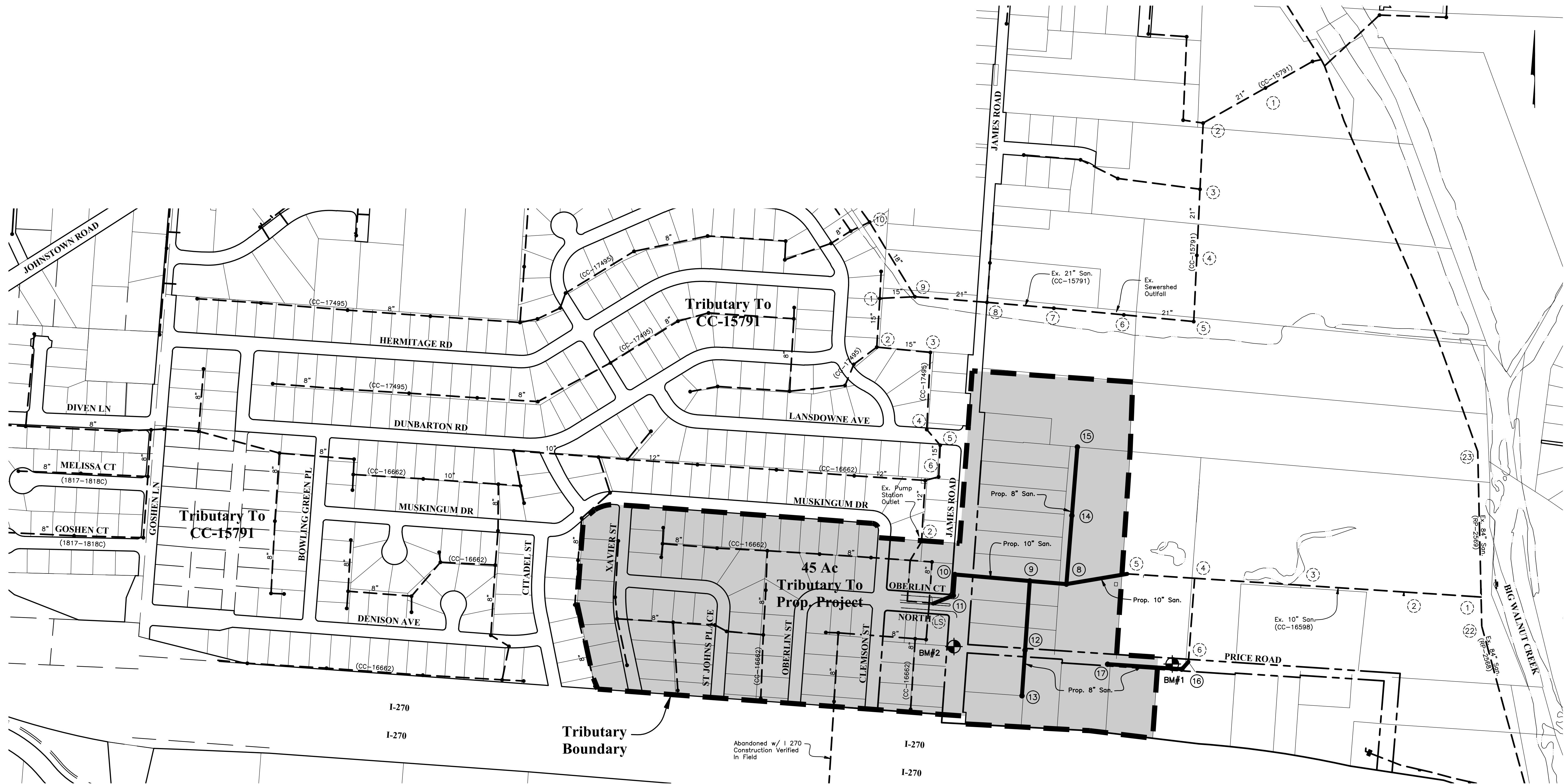


LATERAL TABLE							
Address	Sheet	Riser Length (FT)	Riser Angle	Lateral Horizontal (Pay) Length (ft)	Lateral Slope	EOS Location	EOS Elev
312 James	6	0	0	5	2%	5+35	~779
326 James	6	0	0	111	8%	5+34, 108' LT	~787.4
336 James	6	5	90	28	2%	4+92, 28' LT	~781
346 James	6	6	90	29	2%	4+05, 29' LT	~782
354 James	6	6	90	29	2%	3+15, 29' RT	~782
362 James	6	6	90	30	2%	2+25, 30' RT	~781
370 James	6	8	90	30	2%	1+35, 30' RT	~783



STATION	1	2	3	4	5
SURFACE	790.07	790.06	790.61	789.12	787.37
INVERT	772.92	776.49	776.94	777.49	777.94
CUT	17.15	13.57	13.67	11.63	9.65

REVISIONS	
DESCRIPTION	
MARK	
DATE	
GAHANNA	
CITY OF GAHANNA, OHIO SANITARY IMPROVEMENT PLANS FOR PRICE ROAD SEWER PHASE II SA-1032 PLAN & PROFILE	
 <small>Evans, Meecham, Henderson & Tiron, Inc. 5500 New Albany Road, Columbus, OH 43254 Phone: 614.775.4500 Toll Free: 888.775.3448 emht.com</small>	
DATE	January 2016
SCALE	Horiz: 1" = 20' Vert: 1" = 10'
JOB NO.	20150087
SHEET	6/8



TRIBUTARY MAP
Scale: 1" = ###'

MARK	DATE	DESCRIPTION

CITY OF GAHANNA, OHIO
GAHANNA

**SANITARY IMPROVEMENT PLANS
FOR
PRICE ROAD SEWER
PHASE II SA-1032
TRIBUTARY MAP**

EMHT
 ENGINEERS, ARCHITECTS, SURVEYORS & TITERS, INC.
 ENGINEERS • SURVEYORS • PLANNERS • SCIENTISTS
 5500 New Albany Road, Columbus, OH 43254
 Phone: 614.775.5300
 Fax: 614.775.5301
 emht.com

DATE
January 2016

SCALE
As Noted

JOB NO.
20150087

SHEET
8/8